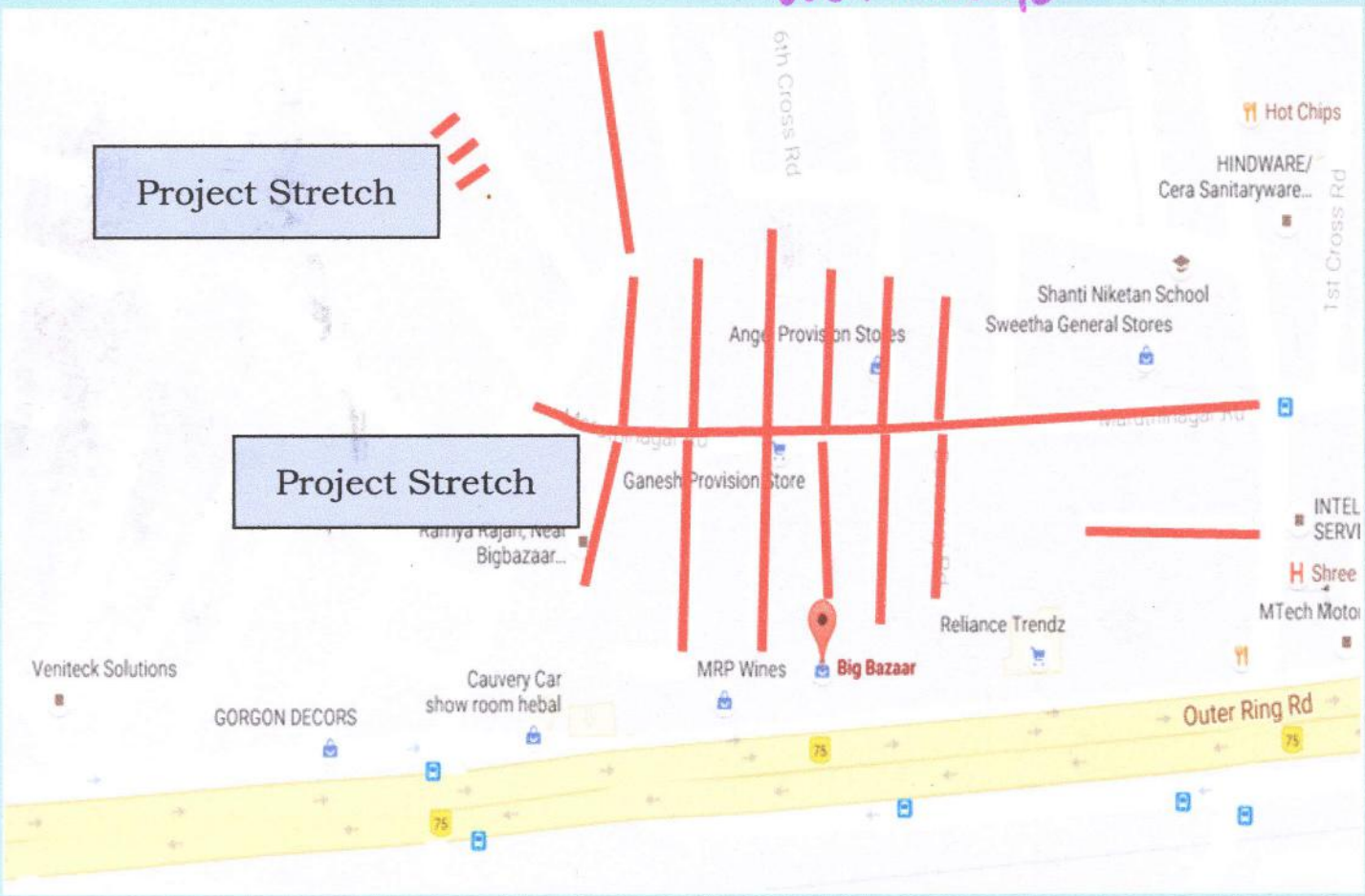
BRUHAT BANGALORE MAHANAGARA PALIKE

Improvements to Road,Drain and Footpath in Main Road and abutting Cross Roads of Marutinagara 1st Stage in Ward No.8, Kodigehalli



Detailed Project Report

October 2016

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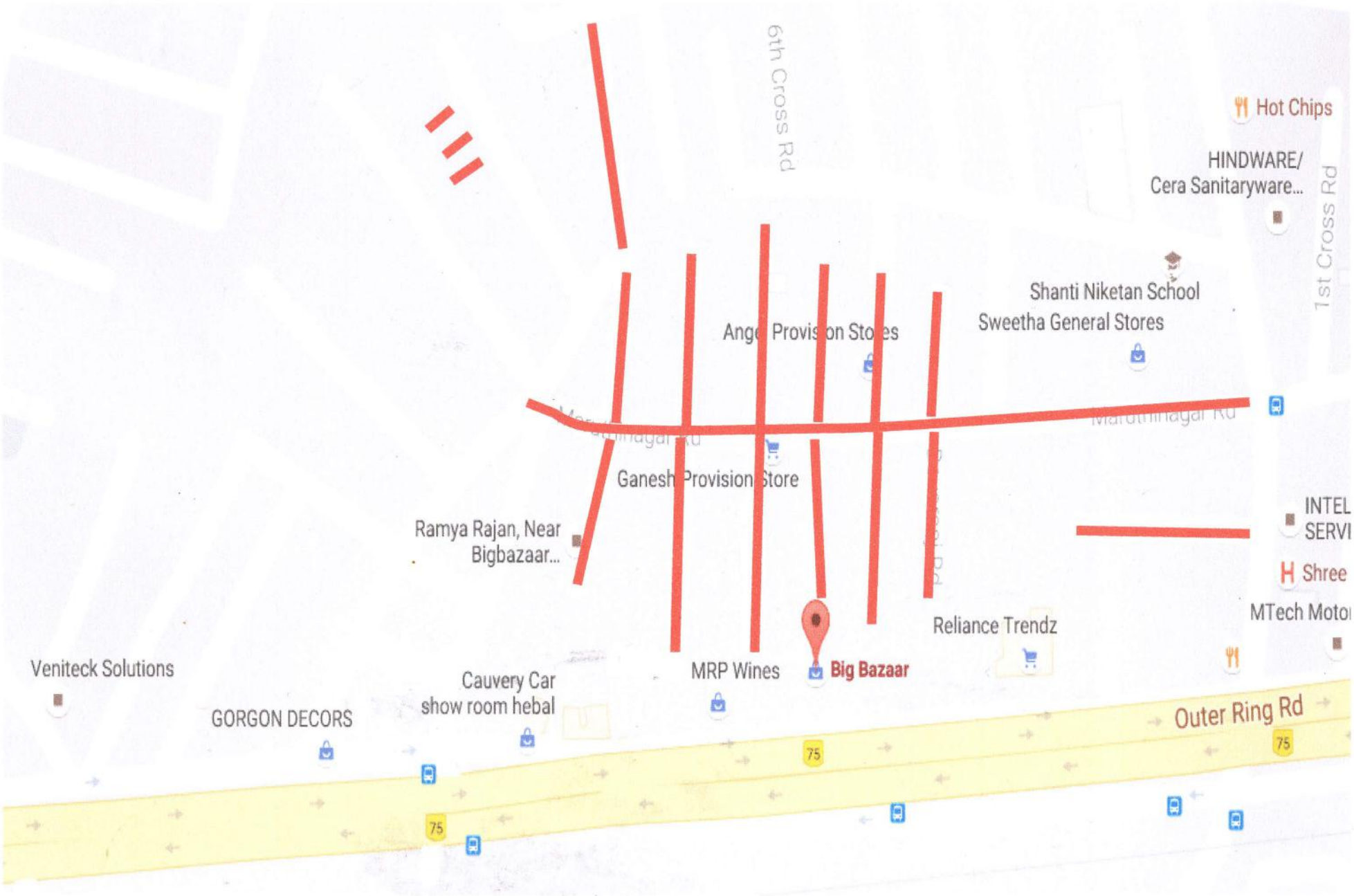
KEY MAP – Cross Road Of Maruthinagar 1st Stage



BRUHAT BANGALORE MAHANAGARA PALIKE

Project: Improvements to Road,Drain and Footpath in Main Road and abutting Cross Roads of Maruthinagara 1st Stage in Ward No.8, Kodigehalli

Est Cost: =70 Lakh

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
1	Removing and Resetting of Footpath Slab (P.No.265, I.No.37.56 of PW, P&IWTD SR 2016-17)								
	Drain Cover	Sqm							
	Drain Cover								
	1st main Road								
	Ch 0-325 LHS		1	220.00	0.9	--	198.00		
	Ch 0-325 RHS		1	275.00	0.9	--	247.50		
	2nd A cross road		2	70.00	0.90	--	126.00		
	4thA&B cross Roads		4	65.00	0.9	--	234.00		
	6th A& B cross roads		4	65.00	0.90	--	234.00		
							1039.50		
	Consider 20% Missing slabs and damaged slabs						207.90		
							831.60	132.50	**110187.00**
2	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neately dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17)								
	Maruthinagara	Cum							
	Desilt								
	1st main Road								
	Ch 0-325 LHS		1.00	325.00	0.60	0.40	78.00		
	Ch 0-325 RHS		1.00	325.00	0.60	0.40	78.00		
	Intelli solutions road		2.00	50	0.60	0.40	24.00		
	8th A cross road		2.00	70.00	0.60	0.40	33.60		
	7th A&B cross roads		4.00	70.00	0.60	0.40	67.20		
	6th A& B cross roads		4.00	65.00	0.60	0.50	78.00		
	5th A and 5th B cross roads								
	4th A&B cross roads		4.00	65.00	0.60	0.40	62.40		
	3rd A and 3rd B cross roads		4.00	65.00	0.60	0.40	62.40		
	2nd A cross road		2.00	70.00	0.60	0.40	33.60		
	New Drain								
	Handigud Road								
	1st A Cross								
	Ch 0-25		1.00	25.00	0.80	0.70	14.00		
	1st B Cross								
	Ch 0-25		1.00	25.00	0.80	0.70	14.00		
	1st C Cross								
	Ch 0-25		1.00	25.00	0.80	0.70	14.00		
	Culvert								
	1st main Road		1.00	4.00	1.60	1.30	8.32		
	8th Cross		2.00	135.00	1.10	0.80	237.60		
							805.12	192.92	**155323.75**
3	KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892 cum and fine aggregates @ 0.465 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.2 of PW,P&IWTD S.R 2016-17)								
	Bed Concrete	Cum							

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
	Culvert								
	1st main Road		1.00	4.00	1.60	0.15	0.96		
	Handigud Road								
	Road Portion								
	1st A Cross								
	Ch 0-25		1.00	25.00	4.00	0.15	15.00		
	1st B Cross								
	Ch 0-25		1.00	25.00	4.00	0.15	15.00		
	1st C Cross								
	Ch 0-25		1.00	25.00	4.00	0.15	15.00		
	8th Cross		2.00	135.00	1.10	0.10	29.70		
							75.66	5348.76	**404687.18**
4	KSRB 4-6.1: Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications. Specifcation No. KBS 4.6.2 (P.No.15, I.No.4.28 of PW, P&IWTD SR 2016-17)								
	Bottom Slab	Sqm							
	Culvert								
	1st main Road		2.00	4.00	--	0.25	2.00		
							2.00	244.86	**489.72**
5	KSRB 4-6.4: Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surfaces such as walls at any thickness, including attached pilasters, buttresses, plinth and string courses cost of all materials, labour complete as per specifications. Specification No.KBS 4.6.2 (P.No.15, I.No.4.31 of PW,P&IWTD SR 2016-17)								
	Side Walls	Sqm							
	Culvert								
	1st main Road		4.00	4.00	--	0.900	14.40		
							14.40	310.58	**4472.35**
6	Providing and laying cement concrete using 20mm and downsize granite coarse aggregates and fine aggregates of ready mixed concrete (RMC) for RCC works laid in 15cms thick layers and well compacted vibrating, curing, finishing with necessary cement mortar, with all lead and lifts etc., complete (exclusive of cpost of steel and fabricaton charges) Ready Mixed Cement Concrete M 20 for Raft foundation, Column, Footing, main and secondary beams. (P.No.18, I.No.4.48 of PW, P&IWTD SR 2016-17)								
	Drain	Cum							
	Bottom Slab								
	Culvert								
	1st main Road		1.00	4.00	1.40	0.25	1.40		
	Side Walls								
	Culvert								
	1st main Road		2.00	4.00	0.25	0.90	1.80		
							3.20	6231.74	**19941.57**
7	Providing laying plain/ reinforced cement concrete M20 Grade for Box Drain walls of thickness 10cm to 20cm including centering shuttering for work etc. complete as per approved drawing and design MORTH specification No. 1500, 1700, 2200. (P.No.265, I.No.37.59.2 of PW, P&IWTD SR 2016-175)								
	Bottom Slab	Cum							
	8th Cross		2.00	135.00	0.90	0.15	36.45		
	Side Walls								
	8th Cross		4	135.00	0.15	0.60	48.60		
							85.05	11032.48	**938312.42**

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
8	KSRB - 4.9.2: Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, palcing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining memebrs wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3. (P.No.17, I.No.4.46.3 of PW, P&IWTD SR 2016-17)								
	Consider 45Kgs/cum for only RCC Qty	Tonne		85.05	0.045	--	3.83		
	Consider 80Kgs/cum for only RCC Qty			3.20	0.080	--	0.26		
							4.09	59413.00	**242999.17**
9	Removing and refixing stone slabs of drains and pointing in CM (1:3)) (P.No.25, I.No.5.33 of PW, P&IWTD SR 2016-17)								
	BS Slab Drain	Sqm							
	1st main Road		1	50	1.2	--	60.00		
	Intelli solutions road		2	50	1.8	--	180.00		
	8th A cross road		2	15	1.8	--	54.00		
	7th A&B cross roads		4	15	1.8	--	108.00		
	6th A& B cross roads		4	25	1.8	--	180.00		
	5th A&B cross roads		4	65	1.2	--	312.00		
			4	20	1.8	--	144.00		
	3rd A&3rdd B cross roads		4	65	0.9	--	234.00		
							1272.00		
	Consider 20% for missing and Damage Slabs						254.40		
							1526.40	80.56	**122966.78**
10	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 10cms thick (P.No.25, I.No.5.31.2 of PW, P&IWTD SR 2016-17)								
	New Drain	Sqm							
	Handigud Road								
	1st A Cross								
	Ch 0-25		1.00	25.00	1.80	--	45.00		
	1st B Cross								
	Ch 0-25		1.00	25.00	1.80	--	45.00		
	1st C Cross								
	Ch 0-25		1.00	25.00	1.80	--	45.00		
	8th Cross		2.00	135.00	0.90	--	243.00		
	Consider 20% for missing and Damage Slabs						254.40		
							632.40	825.74	**522197.98**
11	KSRB 5-11 : Providing and constructing load bearing wall with solid concrete blocks of size 400x150x200 mm having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 4.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications. KBS No.5.4(P.No.24, I.No.5.26.2 of PW, P&IWTD SR 2016-17)								
	Flagging Course / Raising of BS Drain	Sqm							
	1st main Road								
	Ch 0-325 LHS		2.00	220.00	--	0.20	88.00		
	Ch 0-325 RHS		2.00	275.00	--	0.20	110.00		
							198.00	961.42	**190361.16**

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
12	KSRB 4-1.6: Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.459 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.6 of PW,P&IWTD S.R 2016-17)								
	Coping	Cum							
	1st main Road								
	Ch 0-325 LHS		2.00	220.00	0.15	0.075	4.95		
	Ch 0-325 RHS		2.00	275.00	0.15	0.075	6.19		
							11.14	5767.46	**64235.09**
13	Providing and fixing **RCC Precast cover slab of 100mm thick** for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
	Cover Slab	Sqm							
	Missing slabs and damaged slabs						207.90		
							207.90	1698.00	**353014.20**
14	Providing and fixing **RCC Precast cover slab of 250mm thick** for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
	Culvert Slab	Sqm							
	1st main Road		1.00	5.00	1.50	--	7.50		
			1.00	7.00	1.50	--	10.50		
							18.00	4764.00	**85752.00**
15	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting, including formwork, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc., complete (P.No.25, I.No.5.30 of PW,P&IWTD S.R 2016-17)								
	For Road Kerb	No.							
	1st main road		2.00	325.00	--	/0.45	1444.00		
							1444.00	331.78	**479090.32**
16	KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 (P.No.182, I.No. 24.1 of PW,P&IWTD SR 2016-17)								
	For Kerb Painting	Sqm							
	1st main road		2.00	325.00	--	0.35	227.50		
							227.50	63.60	**14469.00**
17	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2016-17)								
	Road Portion	Cum							
	1st Main Road								
	Intelli solutions road								
	Ch 0-50		1.00	50.00	5.50	0.30	82.50		
	Handigud Road								
	1st A Cross								

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	Ch 0-25		1.00	25.00	4.00	0.30	30.00		
	1st B Cross								
	Ch 0-25		1.00	25.00	4.00	0.30	30.00		
	1st C Cross								
	Ch 0-25		1.00	25.00	4.00	0.30	30.00		
	Bad Reaches								
			9.00	2.00	2.50	0.30	13.50		
							186.00	154.76	**28785.36**
18	KSRRB M300-59.1. Loosening of the ground upto a level of 500mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Table 300-2 for subgrade construction complete as per specifications. Case-I:Compacting original ground supporting subgrade, (which includes watering charges & compaction by vibratory roller) MORTH Specification No. 305.3.4(P.No.149, I.No.19.65 of PW,P&IWTD S.R 2016-17)								
	Road Portion	cum							
	Intelli solutions road								
	Ch 0-50		1.00	50.00	5.50	0.30	82.50		
	Handigud Road								
	1st A Cross								
	Ch 0-25		1.00	25.00	4.00	0.30	30.00		
	1st B Cross								
	Ch 0-25		1.00	25.00	4.00	0.30	30.00		
	1st C Cross								
	Ch 0-25		1.00	25.00	4.00	0.30	30.00		
							172.50	55.12	**9508.20**
19	KSRRB 300-58. Compaction of original ground with maximum of 6 passes of 8 to 10 tonnes power roller including filling in depression occuring during rolling including cost of all labour, HOM of machinery complete as per specifications. MORTH / Chapter 3(P.No.149, I.No.19.64 of PW,P&IWTD S.R 2016-17)								
	Road Portion	Sqm							
	Intelli solutions road								
	Ch 0-50		1.00	50.00	5.50	--	275.00		
	Handigud Road								
	1st A Cross								
	Ch 0-25		1.00	25.00	4.00	--	100.00		
	1st B Cross								
	Ch 0-25		1.00	25.00	4.00	--	100.00		
	1st C Cross								
	Ch 0-25		1.00	25.00	4.00	--	100.00		
							575.00	5.30	**3047.50**
20	KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.158, I.No.20.18 of PW,P&IWTD SR 2016-17)								
	Road Portion	Cum							
	1st Main Road								
	Intelli solutions road								
	Ch 0-50		1.00	50.00	5.50	0.25	68.75		
	Bad Reaches								
			9.00	2.00	2.50	0.25	11.25		
							80.00	1768.08	**141446.40**
21	KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kglsqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.161, I.No.21.6 of PW,P&IWTD SR 2016-17)								
	Road Portion	Sqm							

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	Intelli solutions road								
	Ch 0-50		1.00	50.00	5.50	--	275.00		
	Bad Reaches								
			9.00	2.00	2.50	--	45.00		
							320.00	27.56	**8819.20**
22	KSRRB 500-2: Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatement including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Spec, Chapter 5 (P.No.161, I.No.21.2 of PW,P&IWTD SR 2016-17)								
	Road Portion	Sqm							
	8th A cross road		1	70.00	5.00	--	350.00		
	7th A&B cross roads		2	70.00	4.50	--	630.00		
	6th A &6thB Cross Roads		2	65.00	5.50	--	715.00		
	5th A &5thB Cross Roads		2	65.00	4.85	--	630.50		
	4th A&B cross roads		2	65.00	5.00	--	650.00		
	3rd A and 3rd B cross roads		2	65.00	4.50	--	585.00		
	2nd A cross road		1	70.00	6.00	--	420.00		
	Deduct prime coat for Bad Reaches						-45.00		
							3935.50	3.18	**12514.89**
23	KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR of 2016-17)								
	For Laying DBM/ Profile Correction	Sqm							
	Intelli solutions road								
	Ch 0-50		1.00	50.00	5.50	--	275.00		
	8th A cross road		1.00	20.00	1.80	--	36.00		
	7th A&B cross roads		2.00	18.00	1.80	--	64.80		
	6th A &6thB Cross Roads		2.00	65.00	5.50	--	715.00		
	5th A &5thB Cross Roads		2.00	65.00	4.85	--	630.50		
	4th A&B cross roads		2.00	16.00	1.95	--	62.40		
	3rd A and 3rd B cross roads		2.00	15.00	1.80	--	54.00		
	2nd A cross road		1.00	15.00	2.80	--	42.00		
	Bad Reaches								
			9.00	2.00	2.50	--	45.00		
	For Bell Mouth at Cross road Approach		16	5.00	6.00	--	480.00		
	For Laying BC								
	Intelli solutions road								
	Ch 0-50		1.00	50.00	5.50	--	275.00		
	8th A cross road		1.00	70.00	5.00	--	350.00		
	7th A&B cross roads		2.00	70.00	4.50	--	630.00		
	6th A &6thB Cross Roads		2.00	65.00	5.50	--	715.00		
	5th A &5thB Cross Roads		2.00	65.00	4.85	--	630.50		
	4th A&B cross roads		2.00	65.00	5.00	--	650.00		
	3rd A and 3rd B cross roads		2.00	65.00	4.50	--	585.00		
	2nd A cross road		1.00	70.00	6.00	--	420.00		
	For Bell Mouth at Cross road Approach		17.00	5.00	6.00	--	510.00		
							7170.20	11.66	**83604.53**

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
24	KSRRB M500-16. Providing and laying dense bituminous macadam 50-75mm compacted thickness with 4.5% VG-30 Bitumen using 40/60 TPH capacity H.M.P, using crushed aggregates of grading II, premixed with VG 30 grade bituminous binder and transporting the hot mix to work site, laying with mechanical paver to the required grade level and alignment rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10, complete in all respects complete as per specification MORTH specification No. 507 (P.No.163 I.No. 21.17.6 of PW,P&IWTD S.R 2016-17)								
	For Laying DBM/ Profile Correction	Cum							
	Intelli solutions road								
	Ch 0-50		1.00	50.00	5.50	0.05	13.75		
	8th A cross road		1.00	20.00	1.80	0.05	1.80		
	7th A&B cross roads		2.00	18.00	1.80	0.05	3.24		
	6th A &6thB Cross Roads		2.00	65.00	5.50	0.05	35.75		
	5th A &5thB Cross Roads		2.00	65.00	4.85	0.05	31.53		
	4th A&B cross roads		2.00	16.00	1.95	0.05	3.12		
	3rd A and 3rd B cross roads		2.00	15.00	1.80	0.05	2.70		
	2nd A cross road		1.00	15.00	2.80	0.05	2.10		
	Bad Reaches								
			9.00	2.00	2.50	0.05	2.25		
	For Bell Mouth at Cross road Approach		16.00	5.00	6.00	0.05	24.00		
							120.24	6435.26	**773743.49**
25	KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17)								
	For Laying BC	Cum							
	Intelli solutions road								
	Ch 0-50		1.00	50.00	5.50	0.04	11.00		
	8th A cross road		1.00	70.00	5.00	0.04	14.00		
	7th A&B cross roads		2.00	70.00	4.50	0.04	25.20		
	6th A &6thB Cross Roads		2.00	65.00	5.50	0.04	28.60		
	5th A &5thB Cross Roads		2.00	65.00	4.85	0.04	25.22		
	4th A&B cross roads		2.00	65.00	5.00	0.04	26.00		
	3rd A and 3rd B cross roads		2.00	65.00	4.50	0.04	23.40		
	2nd A cross road		1.00	70.00	6.00	0.04	16.80		
	For Bell Mouth at Cross road Approach		17.00	5.00	6.00	0.04	20.40		
							190.62	7270.54	**1385910.33**
26	KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17)								
	Edge line	Sqm	2	520.00	0.10	--	104.00		
							104.00	542.72	**56442.88**

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
27	Cement concrete pavement.Construction of un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 with 25mm and down size graded granite metal coarse aggregates and fine aggregtes , with superplastisiser @3lts confirming to IS9103-1999 ReaffirmecF2008 , mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications. M20 (at 300Kg per cum coarse aggregate @ 0.69cum and fine aggregate @ 0.43cum) ((P.No.177, I.No.22.6.2 of PW,P&IWTD SR 2016-17)								
	Handigud Road	Cum							
	1st A Cross								
	Ch 0-25		1.00	25.00	4.00	0.15	15.00		
	1st B Cross								
	Ch 0-25		1.00	25.00	4.00	0.15	15.00		
	1st C Cross								
	Ch 0-25		1.00	25.00	4.00	0.15	15.00		
	8th Cross		1.00	80.00	4.60	0.15	55.20		
							100.20	5508.82	**551983.76**
28	Vaccum de-watering with vaccum pump and suction mat and compaction with skin floater clubbed with floating disc including cost of generator, HOM of machinery, Screed Vibratory, Power Floater, blade and disc etc., with all lead and lift.(P.No.177, I.No.22.7 of PW, P&IWTD SR 2016-17)								
	Handigud Road	Sqm							
	1st A Cross								
	Ch 0-25		1.00	25.00	4.00	--	100.00		
	1st B Cross								
	Ch 0-25		1.00	25.00	4.00	--	100.00		
	1st C Cross								
	Ch 0-25		1.00	25.00	4.00	--	100.00		
	8th Cross		1.00	80.00	4.60	--	368.00		
							668.00	95.40	**63727.20**
29	Providing groove cutting to concrete pavement for width of 5mm to 10mm and depth 80mm - 100mm including cost of cutting machine, generator & HOM of machinery, including cost of blade, coolant, etc., including cleaning of grove & providing sand and hot bitumen fillars, and filler metal etc., including cost of conveyance of all amterials, labour, lead and lift charges and all other incidental charges as per drawing and as per specifications.(P.No.178, I.No.22.8.1 of PW, P&IWTD SR 2016-17)								
	Handigud Road	Rmt							
	1st A Cross								
	Ch 0-25		3	4.00	--	--	12.00		
	1st B Cross								
	Ch 0-25		3	4.00	--	--	12.00		

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	1st C Cross								
	Ch 0-25		3	4.00	--	--	12.00		
							36.00	121.90	**4388.40**
								Total Construction Cost	**6832421.830**
30	Add cost of **Waste Plastic** @ 8% of Bitumen weight								
	Bitumen = 141 kg/cum		--	--	--	--	**2150.19**	27.00	**58055.00**
	Waste =190.62 X 141 X 8 / 100 = 2150.19								
31								**Cost towards Preparation of DPR LS**	**40995.00**
32								**Cost towards PMC / Third Party inspection LS**	**68325.00**
								Sub Total	**6999796.83**
33								**Miscellaneous and rounding off**	**203.17**
								Total	**7000000.00**

Certificate.

1 The workspot was inspected and work is found to be necessary.
2 The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
4 The provisions made in the estimate are necessary and essential.

For Tejus Consultants

Assistant Engineer

Assistant Executive Engineer

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

Executive Engineer

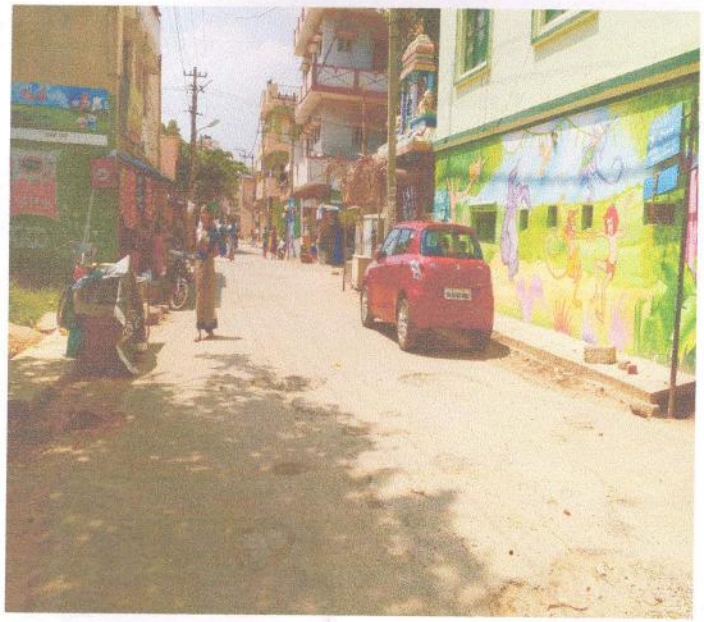
Executive Engineer
Byatarayanapura Division
BBMP, Bangalore-92

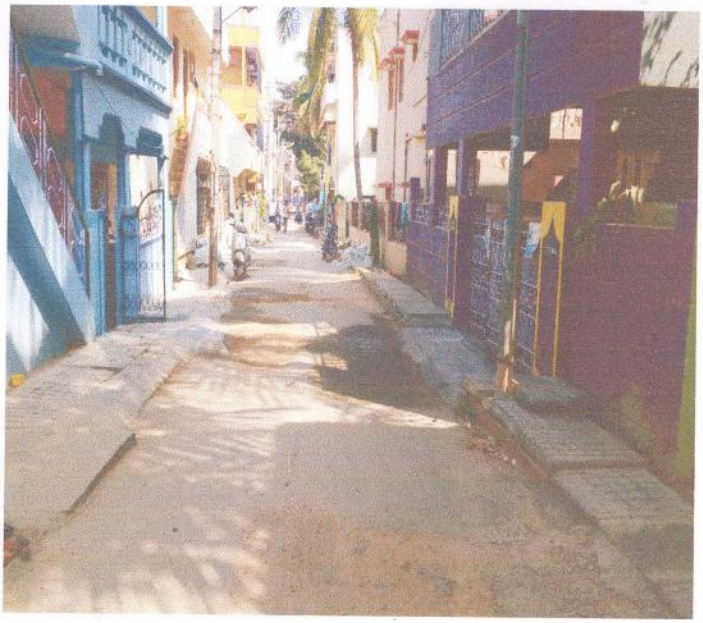
Technical Sanction
Accorded For ....70.00 lakh Rs.
Head of A/C.....P3158.....
CER NO :.....159..... **Dt:**..04/03/17

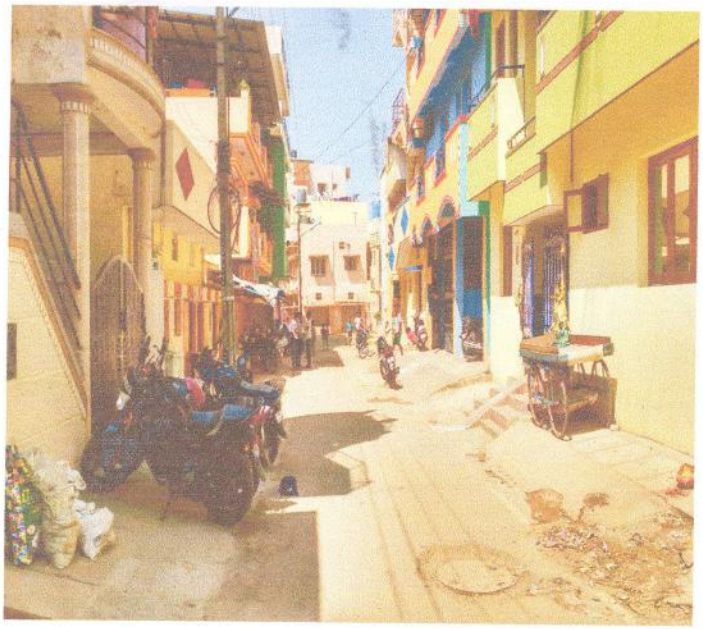
TA

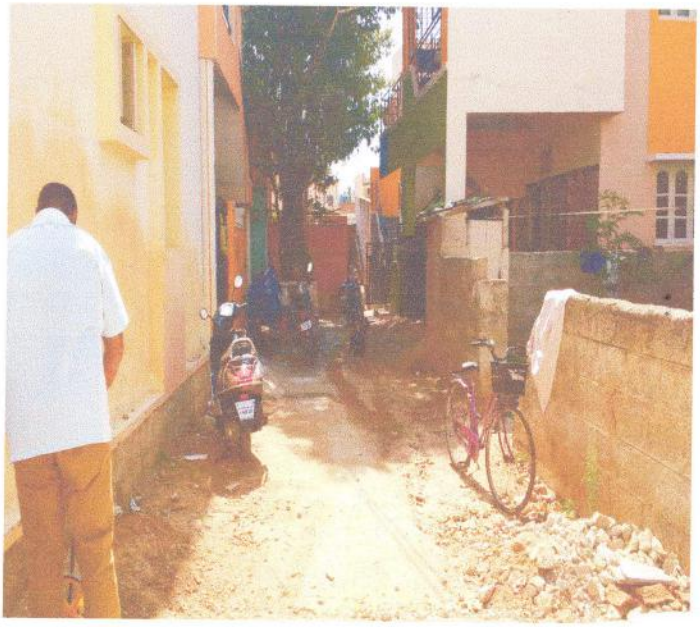
CE (YNK)

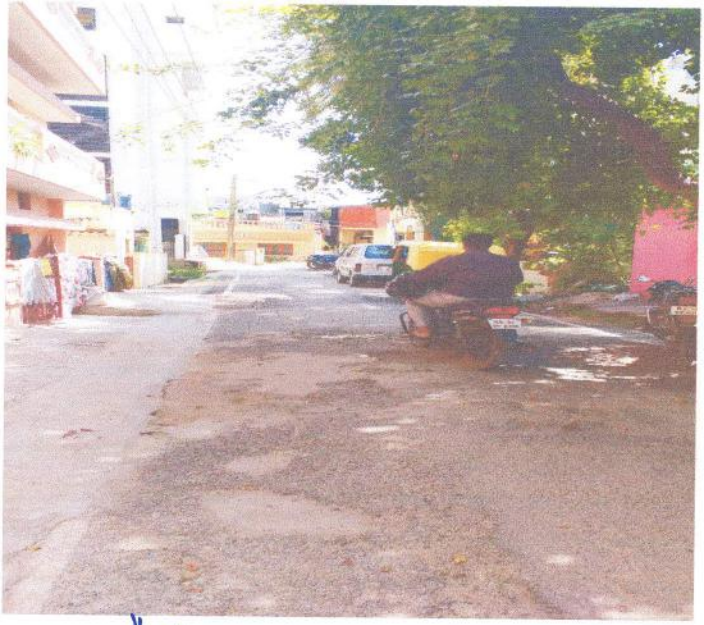
EXISTING VIEWS







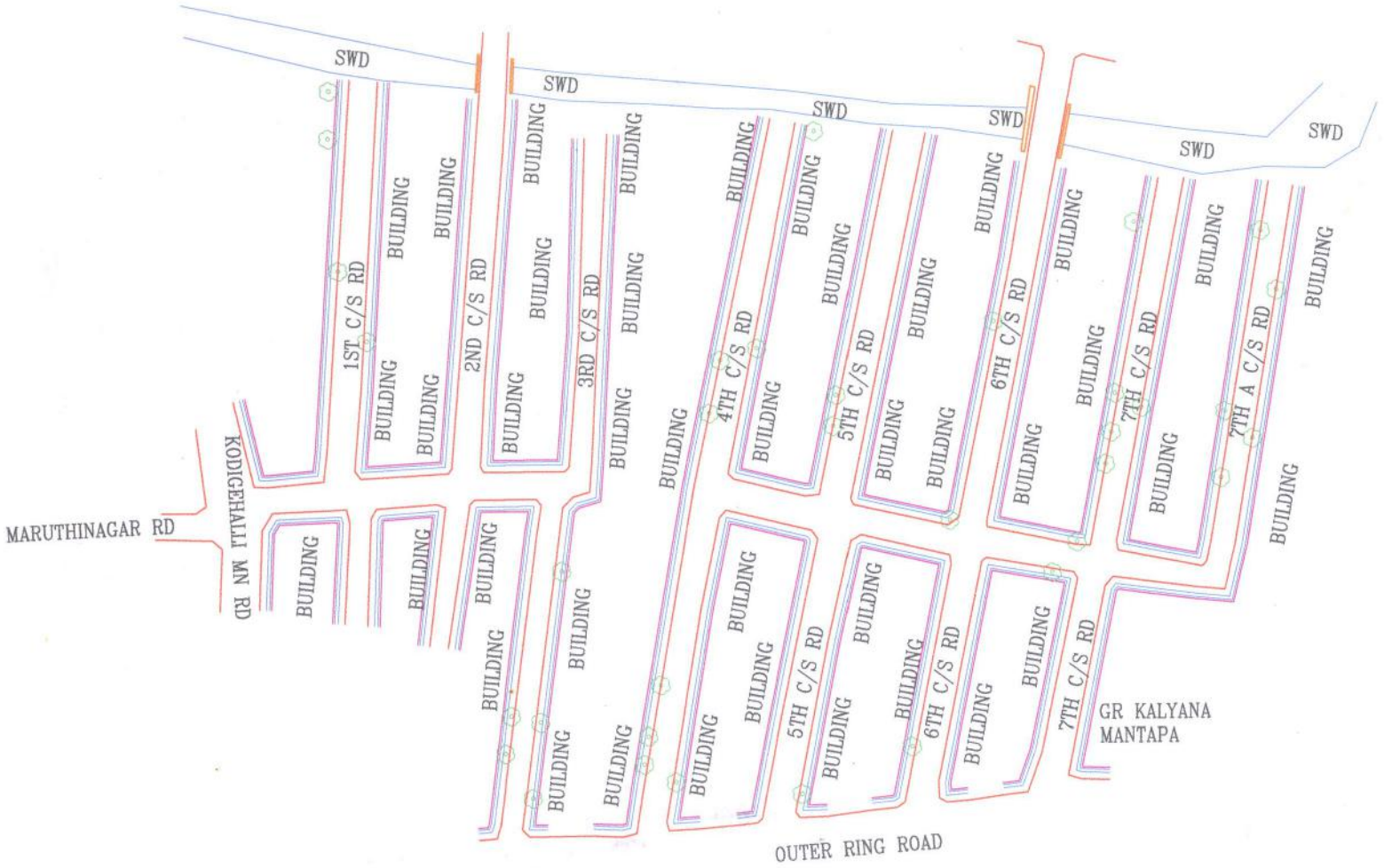




Assistant Executive Engineer.
Kodigehalli Sub Division,

BRUHAT BANGALORE MAHANAGARA PALIKE

IMPROVEMENTS TO ROAD,DRAIN AND FOOTPATH IN MAIN ROAD AND ABUTTING CROSS ROADS OF MARUTHINAGARA 2ND STAGE IN WARD NO.8, KODIGEHALLI



NOTE:-

1. ALL DIMENSION & LEVELS ARE Mts. UNLESS OTHERWISE MENTIONED.

DATE	No. OF PRINTS	PRINTS ISSUED TO	SIGN

DATE	REVISION	DESCRIPTIONS	SIGN

LEGEND:-

Road
Drain
Contour
Levels
Power line
Telephone pole
Street light
Electric pole
Tree
Building
Bore Well
Drain level
Compound wall
Culvert
Coconut Tree
Road level

CONSULTANT:

TEJUS CONSULTANTS

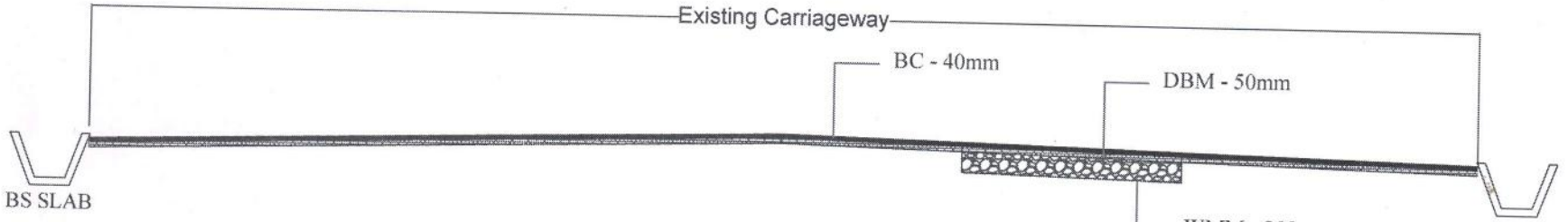
No.58 MIG, 6th Cross, 3rd Main
1st Stage, Basaveshwaranagar
Bangalore-560079
TEL: 080 - 23287532
email: tejusconsultants@gmail.com

TITLE: STRIP PLAN

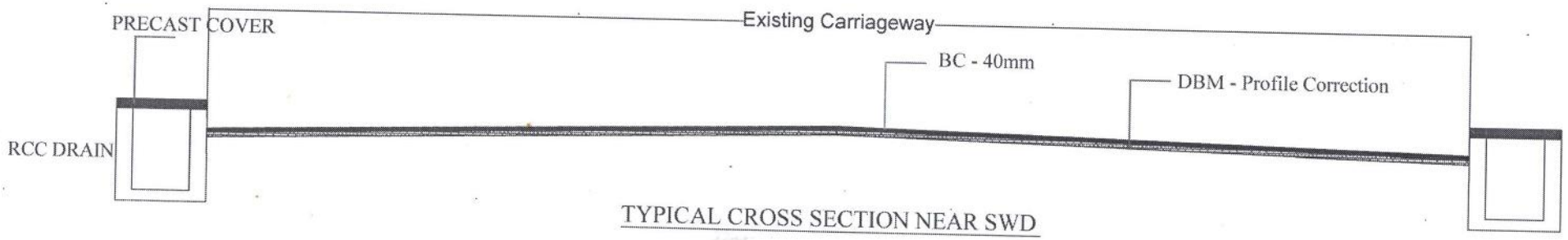
1/1

BRUHAT BANGALORE MAHANAGARA PALIKE

IMPROVEMENTS TO ROAD,DRAIN AND FOOTPATH IN MAIN ROAD AND ABUTTING CROSS ROADS OF MARUTHINAGARA 2ND STAGE IN WARD NO.8, KODIGEHALLI



TYPICAL CROSS SECTION FOR ROAD CUT PORTION



TYPICAL CROSS SECTION NEAR SWD

NOTE:-

1. ALL DIMENSION & LEVELS ARE Mts. UNLESS OTHERWISE MENTIONED.

DATE	No. OF PRINTS	PRINTS ISSUED TO	SIGN

DATE	REVISION	DESCRIPTIONS	SIGN

CONSULTANT :

TEJUS CONSULTANTS
No.58 MIG, 6th Cross, 3rd Main
1st Stage, Baseveshwaranagar
Bangalore-560079
TEL: 080 - 23267532
email. tejusconsultants@gmail.com

TITLE:

TYPICAL CROSS SECTION